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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,404	07/26/2001	Franz Josef Bayer	225/50217	4246

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EXAMINER

BURNHAM, SARAH C

ART UNIT	PAPER NUMBER
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3636

DATE MAILED: 08/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,404

Applicant(s)

BAYER ET AL.

Examiner

Sarah C. Burnham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on July 26, 2000. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information referred to in the information disclosure statements filed on October 26, 2001 has been considered as to the merits.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, an evacuator (claim 1, 14, 17), a pre-crash sensory mechanism (claim 2), an overpressure container (claim 12), a vehicle passenger seat (claim 17) and a Venturi nozzle (claim 13) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. On page 3 of the specification, applicant refers to German Patent Publication DE 297 10 511 U1, which is not included in the Information Disclosure Statement. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

5. The disclosure is objected to because of the following informalities:
- In paragraph [0006] on page 2 of the specification, it appears as if the phrase “which is arranged in the head restraint is arranged in the back rest of a vehicle seat” should be replaced with “which is arranged in the head restraint **that** is arranged in the back rest of a vehicle seat.”
- Appropriate correction is requested.

Claim Objections

6. Claim 3 is objected to because of the following informalities:

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- In line 4 of claim 3 it appears as if the phrase "are integrated below or within" should be replaced with "is integrated below or within" to comply with standard grammatical guidelines

Appropriate correction is requested.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 3, 5, 8, 10, 14-15 and 17-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 1 is indefinite because it does not clearly state what is being "[refilled] with gas" in line 7.
- Claim 3 recites the limitation "the backrest" in line 4. There is insufficient antecedent basis for this limitation in the claim.
- Claim 5 is indefinite because it does not clearly set forth the metes and bounds of the patent protection desired and instead presents two contrasting configurations (i.e. hermetically sealed and partially gas-conductively connected).
- Claim 7 recites the limitation "the actuator assembly" in line 3. There is insufficient antecedent basis for this limitation in the claim.

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- Additionally, claim 7 is indefinite because it is unclear whether the “one valve device” is being claimed as a part of the duct or as a part of the “actuator assembly.”
- Claim 10 recites the limitation “the motor vehicle” in line 3. There is insufficient antecedent basis for this limitation in the claim.
- Claim 14 recites the limitation “the container” in line 6, while all previous references to the container are worded as “the at least one container.” Consistent naming conventions should be employed.
- Claim 15 recites the limitation “the actuator” in line 3. There is insufficient antecedent basis for this limitation in the claim.
- Additionally, claim 15 is indefinite because it is unclear how a crash event can occur between a vehicle and the head restraint assembly.
- Claim 17 recites the limitation “said actuator” in line 10. There is insufficient antecedent basis for this limitation in the claim.
- Claim 18 recites the limitation “said actuator” in line 3. There is insufficient antecedent basis for this limitation in the claim.
- Additionally, claim 18 is indefinite because it is unclear how a crash event can occur between a vehicle and the head restraint assembly.
- Claim 19 recites the limitation “the container” in line 11, while all previous references to the container are worded as “the at least one containers.” Consistent naming conventions should be employed.

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- Claim 20 recites the limitation "the container" in line 7, while all previous references to the container are worded as "the at least one containers." Consistent naming conventions should be employed.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 3-5, 8-9, 14 and 16-17 are rejected under 35 U.S.C. 102(b) as best understood with the above-cited indefiniteness as being unpatentable by Grossmann (4,890,885). Grossman reveals a vehicle passenger seat (1), a backrest (3) and a head restraint (5), consisting of a container (10) with an "air non-permeable cover (13)" (column 2, line 43). An elastically deformable "foam-material layer (8)" (column 2, line 32) also covers the container (10). The container (10) is filled with "air" (column 3, line 18) and filling bodies (14). The container (10) is connected to a duct (19), which in turn is connected to an evacuator assembly consisting of a valve device (21) and a vacuum pump (20). A pump for the central locking system of a motor vehicle can serve as the vacuum pump. The evacuator assembly is located within the backrest (3) of the vehicle passenger seat (1) as shown in Figure 2. The container (10) is divided with a series of dividers (17) into a plurality of chambers. These dividers include

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"a large number of air passage openings (18)" making the chambers at least partially gas conductive.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2, 15 and 18 are rejected under 35 U.S.C. 103(a) as best understood with the above-cited indefiniteness as being unpatentable over Grossmann (4,890,885) as applied to claims 1, 3-5, 8-9, 14 and 17 above and in further view of Cuevas (5,902,010). As presented above, Grossmann shows all claimed limitations except a pre-crash sensory mechanism. Cuevas teaches the use of a pre-crash sensory mechanism (72) that "senses vehicle conditions indicating the occurrence of a crash" (column 2, line 44). It would have been obvious to one of ordinary skill in the art at the time of the instant invention to incorporate the pre-crash sensory mechanism revealed by Cuevas with the head restraint of Grossman. Incorporation of such a mechanism would further reduce the chances of "injuries... during an impact (from in front, the rear or laterally)" (Grossman, column 1, line 33) by correctly positioning the head restraint prior to the impact of the seat occupant's head.

13. Claim 5 is further rejected under 35 U.S.C. 103(a) as best understood with the above-cited indefiniteness as being unpatentable over Grossmann (4,890,885) as applied to claim 1, 3-5, 8-9, 14 and 17 above and in further view of Parrish (5,556,169). As presented above, Grossman shows all claimed elements. Parrish further supports the rejection of claim 5 by teaching the use of chambers that are "fluid sealed" (column 9, line 18) from each other. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify Grossman's head restraint assembly with the fluid sealed compartments revealed by Parrish. Such a modification would allow for the "individual compartments [to be] selectively filled and evacuated at different air pressures or vacuums" (column 9, lines 18-20) and improve contouring.

14. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as best understood with the above-cited indefiniteness as being unpatentable over Grossmann (4,890,885) as applied to claims 1, 3-5, 8-9, 14 and 17 above and in further view of Thorne (3,629,882). As presented above, Grossman shows all claimed elements except filling bodies consisting of different, deformable and/or non-deformable materials. Thorne teaches an energy dissipating support device containing "solid round pellets which may be made of polystyrene" (column 1, line 29) and "solid bars of vinyl or nylon" (column 1, line 70). The pellets are "not compressible" (column 2, line 44). The bars or "plungers" can be "depressed" (column 2, line 42). It would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify the head restraint of Grossman with the pellets and bars of Thorne because the pellets and bars of Thorne provide

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improved material for "absorbing shock and preventing damage to fragile materials" (column 1, lines 9-10). Also, the energy-supporting device claimed by Thorne can be directly applied to "cushioning equipment such as formfitting air or spacecraft seats [and] protective elements for interior of ground vehicles." (column 1, lines b and c).

15. Claims 11-13 are rejected under 35 U.S.C. 103(a) as best understood with the above-cited indefiniteness as being unpatentable over Grossmann (4,890,885) as applied to claims 1, 3-5, 8-9, 14 and 17 above and in further view of Kunz et al. (5,806,110). As presented above, Grossman reveals all claimed elements except a vacuum reservoir, an overpressure container and a Venturi nozzle. Kunz teaches the use of a pressurized air source (3) which serves as a reservoir from which air is pumped into the seat. It also serves as an overpressure container for air bleeding out of the seat when it is occupied. Furthermore, Kunz teaches the use of a "venturi tube" between a hose and a valve.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify Grossman's head restraint with the pressurized air source of Kunz because an enclosed pressure balancing system allows for the smooth flow of air from one cavity in the system to another and therefore a smooth positioning of the seat occupant. Additionally, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify Grossman's head restraint with the Venturi tube of Kunz because a

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Venturi tube would help "speed the deflation" (column 1, line 63) of Grossman's headrest.

16. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) with the above cited indefiniteness as being unpatentable over Grossmann. As presented above, Grossman shows all claimed elements except, the actions of "connecting", "attaching" and "providing" which are taken to make the head restraint, and the action of "evacuating" which is taken to use the head restraint. It would have been obvious, if not inherent, due to the structural design of the head restraint assembly as presented in claims 1-18, to both make and use the assembly as claimed in claims 19 and 20. The method of making the head restraint is both simple and efficient while the method of using the head restraint is effective in minimizing head injury during a rear end collision.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to seat associated inflatable devices powered existing vehicle power supplies:

Lebert (3,895,841)

The following patents are cited to further show the state of the art with respect to gas reservoirs and venturi nozzles:

Lorbiecki (5,975,629)

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The following patents are cited to further show the state of the art with respect to pressurized components within vehicle seats:

Breed (6,088,640)

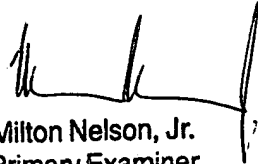
Dellanno (5,580,124)

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah C. Burnham whose telephone number is 703-308-7315. The examiner can normally be reached on M-Th 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 703-308-0827. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1020.

SCB
August 14, 2002



Milton Nelson, Jr.
Primary Examiner